DISCRIMINATING BETWEEN TARIFF BILL-BASED THEORIES OF THE STOCK MARKET CRASH OF 1929 USING EVENT STUDY DATA

Bernard C. Beaudreau Department of Economics Université Laval, Quebec, Canada <u>bernard.beaudreau@ecn.ulaval.ca</u>

> Jude Wanniski (1978) argued that the Smoot-Hawley Tariff Bill was a key factor in the Stock Market Crash of October 1929 and the Great Depression. The specter of higher tariffs and lower foreign trade, he argued, depressed share prices, leading ultimately to the Stock Market Crash. Bernard Beaudreau (1996, 2005), on the other hand, made the reverse argument, namely that the specter of higher tariffs from November 1928 to October 1929 fueled the Stock Market Boom as investors anticipated higher revenues and profits from the anticipated increase in sales and revenues. The Stock Market Crash, he argued, came on the heels of the defeat of the Thomas Recommittal Plan which foretold of lower, not higher as Wanniski contended, tariffs on manufactures. Using Event Study data from January 14, 1929 to October 29, 1929, this paper attempts to discriminate between these two hypotheses. The results show that "good" tariff bill news as reported in the New York Times contributed to stock price appreciation, and vice-versa, supporting the latter theory.

The role of the Smoot-Hawley Tariff Bill in the Stock Market Crash of 1929 remains a contentious issue. Most argue that it was irrelevant, while others see it as a critical factor. For example, Jude Wanniski (1978) argued that the specter of higher tariffs led to the Stock Market Crash in October 1929. Specifically, the defeat of the Thomas

Recommittal Plan on October 21, 1929 combined with the Senate's overall repudiation of Pennsylvania Senator David A. Reed's prediction that the tariff bill was dead (the Reed Declaration) on October 27, 1929, tilted the balance in favor of higher tariffs, lower world trade and lower stock prices (i.e. the crash). Bernard Beaudreau (1996, 2005), on the other hand, pointed out that these same events tilted the balance in favor not of higher tariffs, but rather of lower tariffs, thus compromising the 1928 Republican electoral promise of higher tariffs, sales, profits and earnings for manufactures, and leading to lower stock prices. Higher tariffs on manufactures, Ranking old-guard Senator Reed Smoot reasoned, would translate into higher domestic sales for U.S. firms, and in the process, would close the existing output gap opened up by the spread of mass-production techniques. Consider, for example, the following remarks made by Senator Smoot in the Senate, in response to claims by Democrats that unemployment was increasing in 1927 and 1928

> Senator Smoot insisted that the picture drawn by the Democrats on Monday, when the Senate passed the Senate resolution, was much overdrawn. He admitted that some unemployment existed, but insisted that it did not compare with that of 1920 and 1921 when the Republicans came into power after eight years of Democratic administration. As for one reason for a degree of unemployment, Senator Smoot referred to large importations of foreign merchandise that have been steadily reaching American shores in spite of the Republican protective tariff. . . . These imports have a tendency to supplant large quantities of American goods, despite the tariff, thus slowing down many American industries. There also was an over-supply or overproduction in many lines, Senator Smoot contended, and over-production or under- consumption in the textiles industries. A slow-down of many industries helps to increase industrial unemployment, and the result is immediately felt in the lowering of the consuming power of the wage earners. This has brought about what may be called an oversupply or overproduction existing in many lines; and we might add that mass production has cut a

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great figure in the amount of production in the United States in special lines. (*New York Times*, March 8, 1928)

This paper attempts to discriminate between these hypotheses using event study data. Specifically, tariff bill news data obtained from the New York Times from November 1, 1928 to October 31, 1929 are used in conjunction with daily stock price data (Dow Jones Industrial Average, DJIA) to test whether "good tariff news increased (Beaudreau, 1996, 2005) or decreased (Wanniski, 1978) stock prices. By "good" tariff bill news, it should be understood news that the Bill would *de facto* become law and/or would be more extensive. "Bad" tariff bill news refers to news that the Bill would be defeated and/or scaled down. The underlying logic is straight-forward, namely that the various amendments and/or partial votes constitute signals/partial indicators of the overall probability that the bill would become law. For example, if a vote on an amendment to increase rates on radios was successful, then this would constitute good tariff bill news (for manufactures) and would signal a greater probability that the final bill would pass. According to Beaudreau (1996, 2005), stock prices would rise as a result. However, according to Wanniski, they would fall as a result as higher tariffs on manufactures would serve to increase the probability of (i) retaliation, (ii) a tariff war and (iii) the breakdown of world trade.

The paper is organized as follows. First, we present two key events (the Thomas Recommittal Plan and the Reed Declaration). Next we describe our methodology and present our results. Last, we extend our analysis to the post-Stock Market Crash period, notably from March to June 1930 when the Bill was signed into law. Two sub-periods are considered, namely March 4 to 25, 1930 when the Republican leadership regained control of the Bill, and April 4, 1930 to June 16, 1930 when the Bill was referred to Conference and was signed into law.

The Thomas Recommittal Plan, The Reed Declaration and The Stock Market Crash

Both Wanniski (1978) and Beaudreau (1996, 2005) view the Thomas Recommittal Plan as the key development in the first Stock Market Crash of October 23, 1929. The Thomas Recommittal Plan was an

amendment tabled by Republican Senator Elmer Thomas of Oklahoma aimed at breaking the growing stalemate in the Senate by redefining/limiting the scope of the much-maligned Smoot-Hawley Tariff Bill of 1929. Republicans favored higher tariffs on manufactures, while Democrats and so-called Insurgent Republicans (the majority) opposed the proposed tariff hikes, setting their sights on actually lowering existing Fordney-McCumber (1922) tariff rates on manufactures. The Democrat-Insurgent Republican coalition invoked the promises made to the U.S. electorate in the 1928 general election, specifically the promise of more protection for the nation's farmers. Higher tariffs on manufactures, they argued, would lead to higher overall prices (on manufactures) and ultimately to lower farmer real income.

The amendment read as follows:

I move that the bill (H.R. 2667) to provide revenue, to regulate commerce with foreign countries, to encourage the industries of the United States, to protect American labor and for other purposes, be recommitted to the Committee on Finance with instructions to eliminate therefrom the following described text: Beginning with line 5, on page 2, and including line 4, on page 121, and beginning with line 9, on page 146, and including line 23, on page 279: Provided, That the elimination of such text shall be without prejudice to the submission in the Senate of specific amendments to exiting law: And provided further, That, when the consideration of the said bill is completed in the Senate and before final passage, said Finance Committee is hereby authorized and requested to amend section 648, relating to repeals, so as to make said section conform to the action of the Senate. (Congressional Record, October 21, 1929, p. 4716)

The amendment was defeated by a vote of 64 to 10. Its defeat, Wanniski (1978) argued, was instrumental in the events that would follow. Specifically, he argued that the defeat of the Thomas Recommittal Plan signaled a willingness on the part of the U.S. Senate to raise tariffs on manufactures and agricultural products, thus leading to the 21 point drop (6 percent) in the DJIA on October 23, 1929.

Beaudreau (1996, 2005), on the other hand, argued that the defeat of the Thomas Recommittal Plan was the first of two salvos, resulting in the first Stock Market Crash (Wednesday, October 23, 1929), the other being the vote on the tariff on medicinal tannic acid on October 22, 1929. Empowered and emboldened by its victory (the Thomas Recommittal Plan), the Democrat-Insurgent Republican coalition took aim at existing tariffs on manufactures, starting with medicinal tannic acid. On Tuesday, October 22, 1929, Senator Alben W. Barkley of Kentucky moved to cut the rate to 18 cents (from 20 cents). The motion passed by a margin of 12 votes with 45 for and 33 against. The New York Times reported: "The item on which the vote was taken was incidental, but the result showed that the coalition was nearly intact in its initial drive and also that is still held control in the Senate" (New York Times, October 23, 1929). The writing was on the wall: tariffs on manufactures would fall. The following day, the stock market crashed, losing 21 points (6 percent). The slide continued on Thursday, with the market losing another six points, for a combined, two-day total of 27 points (8 percent).

The trials and tribulations of the proposed tariff legislation irked both the old-guard Republicans (particularly Senator Reed Smoot) and members of the Democrat-Insurgent Republican coalition.¹ Sensing the growing polarization (and the resolve of the Democrat-Insurgent Republican coalition), on Sunday, October 27th, Senator Reed of Pennsylvania made what we refer to as the Reed Declaration, predicting that the Bill would die on the Senate floor.

The New York Times reported:

Senator David A. Reed of Pennsylvania, speaking here last night at a dinner given in honor of the Pennsylvania delegation in Congress by the Metal Trades Council of the Philadelphia Navy Yard, declared that the present Hawley-Smoot tariff bill was dead. The Middle West corn belt Senatorial bloc, he said, was its executioner. Senator Reed accused the Western bloc, only one of which, Senator Borah, he named, of a deliberate determination to boost every tariff provision touching

agriculture and beat down every one touching on Eastern industry, "until we are on a level of common misery." (*New York Times*, October 27, 1929)

Smoot, however, was adamant: the Party would deliver the promised across-the-board tariff hikes, while the Democrat-Insurgent Republican coalition remained steadfast in its pledge to lower tariffs on manufactures. In the following two days of trading (October 28 and 29), the DJIA fell by 38 (13 percent) and 31 points (12 percent), respectively. The Reed Declaration and the uncertainty it engendered killed the bill in the eyes of investors.

Wanniski's interpretation of these events was straightforward: the fallout from the Reed Declaration signaled to the market that tariffs would invariably rise, ushering in a slowdown in world trade. In his words:

The crash of 29 was triggered by the recognition on the part of world markets that the United States was more likely at the end of the last week of October 1929 than it was at the beginning of the week to impose protectionist trade barriers on world commerce. (Forbes 1988, p. 2)

Scott Sumner (1992), however, took issue with Wanniski, arguing that he "probably misinterpreted the transmission mechanism." Specifically, he pointed out that:

There is a serious flaw in the thesis that Smoot-Hawley caused the October stock market crash. Wanniski failed to account for the fact that after the October 23 vote, the anti-tariff coalition grew progressively stronger ... By November 10, the protectionist Republicans had been completely routed and there were expectations that the coalition might force reductions in tariffs on manufactured goods. (Sumner 1992, p. 303)

Beaudreau (1996, 2005) provided an alternative interpretation of these events, one that is consistent with Sumner's rejoinder. Specifically, he maintained that the stock market crashed as the promised higher tariffs on manufactures looked increasingly unlikely, as did the anticipated higher sales, earnings and profits. The Republican party in general, and Senator Reed Smoot in particular, had proposed a round of tariff hikes to "encourage the industries of the United States" which found themselves increasingly constrained on product markets (manufactures and agricultural goods), owing in large measure to the spread of mass production techniques. Higher tariffs would, according to Smoot, secure a greater share of the U.S. market for U.S. firms. Accordingly, the defeat of the Thomas Recommittal Plan and the specter of lower tariffs on manufactures lowered investor expectations.

Whereas Wanniski viewed the various responses to the Reed Declaration that the Bill would die on the Senate floor as evidence that tariffs would definitely rise, Beaudreau viewed it as evidence that they would most certainly fall, especially tariffs on manufactures which the Democrat-Insurgent Republican coalition wanted cut to levels below Fordney-McCumber rates. The Democrat-Insurgent Republican coalition had not been shaken by the earlier drop in the DJIA, and remained steadfast in its pledge to lower rates on manufactures.

Underlying these two opposing views is a corresponding theory of tariffs and stock prices. Wanniski maintained that higher tariffs would serve to depress stock prices owing to the ensuing fall in world trade. Beaudreau, on the other hand, argued that the failure to raise tariffs in the presence of generalized excess capacity would serve to depress stock prices as profits and dividends would not rise (as promised by old-guard Republican senator Reed Smoot). The former predicts that a "good" tariff bill news event would serve to depress stock prices as it would increase the probability of slower/lower world trade, while the latter predicts just the opposite as U.S. firms' domestic market share would rise. A "bad" tariff bill news event would do the reverse, increasing stock prices according to Wanniski, and lowering them according to Beaudreau. To discriminate between these two hypotheses, data on U.S. tariff bill news and stock prices for the period January 14, 1929 to October 29, 1929 were collected.

Specifically, the ProQuest Historical Newspaper Search Instrument for the *New York Times* was used to identify "tariff bill" congressional news events from January 14, 1929 to October 29, 1929.² A total of 105 tariff bill-related congressional news events/items were identified over 86

this period (236 DJIA trading dates). As summarized in Table 1, these were then coded in two ways. First, "good" or "bad" news events were coded using a scale of minus 3 to plus 3 (NEWS-I). Major events involving the Bill's proponents/opponents (Congress and Executive) were assigned a value of 3, while lesser events (e.g. voting on a particular rate or set of rates) were assigned lower values. Multiple tariff bill news-event days were coded on an additive basis (i.e. sum of individual news items). Non-tariff-related news event days were coded as zero. Second, "good" and "bad" news events were coded on a simple minus 1 and plus 1 basis, with the former corresponding to a "bad" news event, and the latter, a "good" news event (NEWS-II). Stock price variations (absolute and relative) were measured using the daily DJIA index.³ Total daily DJIA gains on "good" tariff bill news summed to 149.71 points, while total losses on "bad" tariff bill news summed to 221.14 points, with a net tariff bill-related loss of 71.43 points, which compares favorably with the overall fall in the DJIA from the beginning of the sample to October 30 of 73.99 points.⁴

| Table | 1: Event Study Data | |
|--|--|---|
| Period | 1/14/1929 to 10/29 | /1929 |
| Sample Size: | 236 DJIA Trading | Days |
| Beginning of Sample: | January 14, 1929 | |
| End of Sample: | October 29, 1929 | |
| NEWS-I: Good | Code | Frequency |
| | (4) | 1 |
| | (3) | 3 |
| | (2) | 13 |
| | (1) | 45 |
| NEWS-I: Bad | Code | Frequency |
| | (-5) | 2 |
| | (-3) | 7 |
| | (-2) | 21 |
| | (-1) | 23 |
| Total Good NEWS DJIA Gain | ns: 149.71 | |
| Total Bad NEWS DJIA Losses | s: 221.14 | |
| NEWS-I: Good NEWS-I: Bad Total Good NEWS DJIA Gain | Code (4) (3) (2) (1) Code (-5) (-3) (-2) (-1) ns: 149.71 | 1 3 13 45 Frequency 2 7 21 |

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The estimated correlation coefficients are presented in Table 2 for three samples. In the first sample, all 236 trading days (tariff-related news events and non-tariff-related news events) were included in the sample. In this case, the estimated correlation coefficient between the first tariff bill news event index (NEWS-I) and the corresponding absolute DJIA daily return-price variation (Δ DJIA) is 0.4437, and 0.4372 when measured in percentage (Δ DJIA).⁵ The corresponding values using the second news event index (NEWS-II) are 0.3791 and 0.3663. The correlation coefficient between the two news event indexes (NEWS-I and NEWS-II) is 0.8883. The second sample consisted of the 165 trading days from April 15, 1929 when the Bill was introduced in the House of Representatives to October 29, 1929. This sample was likely more relevant as the news events in this period were "binding" as opposed to speculative (i.e. prior to the bill being introduced into Congress). Here, the estimated correlation coefficients are 0.4663 and 0.4588 for NEWS-I, and 0.4029 and 0.3885 for NEWS-II. Last, we narrowed the original sample to the set of trading days with either "good" or "bad" tariff bill news, consisting of 105 observations, i.e., all non-tariff bill news dates were removed. Here, the relevant correlation coefficients were 0.4893 and 0.4785 for NEWS-I and 0.4380 and 0.4180 for NEWS-II. These results, all of which are statistically significant, support the Beaudreau view according to which investors reacted positively to "good" tariff bill news, pushing the DJIA up, and negatively to "bad" tariff bill news. The Thomas Recommittal Plan as well as the response to the Reed Declaration that the bill would die on the Senate floor were examples of "tariff bill-related bad news," and were met with the two massive price drops that together define the 1929 stock market crash

These results suggest that stock prices were moving in response to tariff bill-related news, and that investors were "on-board" the Republican party's proposed upward tariff revision, pushing stock prices higher with every piece of "good" tariff news, and vice-versa. Higher tariffs, by further restricting access to the U.S. market, would increase market share, sales, profits and earnings. "Bad" tariff bill news in the form of the Thomas Recommittal Plan and the Democrat-Insurgent

Table 2: Correlation Coefficients

| ADJL | A-NEWS-I | ADJIA-NEWS-I %ADJIA-NEWS-I ADJIA-NEWS-II %ADJIA-NEWS-II | ADJIA-NEWS-II | %ADJIA-NEWS-II |
|---|----------|---|----------------------|----------------|
| Complete Sample-236 DJIA Trading Days (1/14/1929-10/29/1929) | 0.4437* | 0.4372* | 0.3791* | 0.3663* |
| Medium Sample-165 DJIA Trading Days (4/15/1929-10/29/1929) | 0.4663* | 0.4588* | 0.4029* | 0.3885* |
| Small Sample-105 DJIA Trading Days (4/15/1929-10/29/1929) | 0.4893* | 0.4785* | 0.4380* | 0.4180* |
| * p<0.01 | | | | |

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Republican response to the Reed Declaration dampened investors' expectations, ultimately depressing prices to their pre-1928 level.

Event Study Regression Results

G. William Schwert (1981) and John J. Binder (1985) used stock market price movements to assess government policy changes.⁶ Here, we use a similar methodology to assess the effects of tariff-bill related news on daily stock market returns (absolute and relative). Specifically, the daily stock market return (Δ DJIA and % Δ DJIA) was regressed against a constant and the tariff bill-related news (NEWS-I) using the same three samples (236, 165 and 105 trading days). The results are presented in Table 3, where we see that in all six cases, daily stock market returns were increasing in tariff bill-related news. In all cases, the results were statistically significant, with roughly 19 to 24 percent of the overall variation (R²) being explained. This suggests that (i) the proposed higher tariffs were expected to be good, and not bad, for stock prices because of protection, and (ii) investors were "on-board" with the Hoover Administration's tariff policy initiative, bidding up share prices in anticipation of higher profits.

| Table 3: Event Study Regression Results (NEWS-I) |
|--|
| Complete Sample (236 DJIA Trading Days) |

| Dependent Variable: ADJIA | | |
|---------------------------|-------------|-------------|
| Independent Variable | Coefficient | t-statistic |
| Constant | -0.2045 | -0.634 |
| NEWS-I | 1.9798 | 7.574 |
| R ² : | 0.1968 | |
| F(236 obs.): | 57.36 | |
| Dependent Variable: % | | |
| Independent Variable | Coefficient | t-statistic |
| Constant | -0.0006 | -0.6421 |
| NEWS-I | 0.0062 | 7.436 |
| R ² : | 0.1911 | |
| F(236 obs.): | 55.298 | |
| | | |

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Table 3 (Continued)

| Medium Sample (165 DJIA Tra | ding Days) | |
|--|---|-------------|
| Dependent Variable: ADJIA | | |
| Independent Variable | Coefficient | t-statistic |
| Constant | -0.2114 | -0.5043 |
| NEWS-I | 1.972 | 6.730 |
| R ² : | 0.2174 | |
| F(165 obs.): | 45.29 | |
| | | |
| Dependent Variable: % ADJIA | | |
| Independent Variable | Coefficient | t-statistic |
| Constant | -0.0007 | -0.5442 |
| NEWS-I | 0.0062 | 6.593 |
| R ² : | 0.2105 | |
| F(165 obs.): | 43.465 | |
| | | |
| Small Sample (105 DJIA Tradin | ng Days) | |
| Dependent Variable: $\Delta DJIA$ | | |
| Independent Variable | Coefficient | t-statistic |
| Constant | -0.7410 | -0.1213 |
| NEWS-I | 1.940 | 5.694 |
| R ² : | 0.0004 | |
| $\Gamma(105 \text{ obs})$ | 0.2394 | |
| F(105 obs): | 0.2394 32.419 | |
| r(103 008). | | |
| Dependent Variable: %∆DJIA | 32.419 | |
| | 32.419 Coefficient | t-statistic |
| Dependent Variable: %∆DJIA Independent Variable Constant | 32.419 Coefficient -0.0023 | -1.182 |
| Dependent Variable: %∆DJIA Independent Variable Constant NEWS-I | 32.419 Coefficient | |
| Dependent Variable: %∆DJIA Independent Variable Constant | 32.419 Coefficient -0.0023 | -1.182 |
| Dependent Variable: %∆DJIA Independent Variable Constant NEWS-I | 32.419 Coefficient -0.0023 0.00616 | -1.182 |

The Post-Stock Market Crash Period

From October to March, the Republican leadership (Smoot, Reed) lost control of the bill. The Democrat-Insurgent Republican coalition, working in the Senate Committee of the Whole, restored the agricultureonly character of the Bill. Hundreds of amendments, affecting all fifteen tariff schedules, were proposed and passed by the Democrats-Insurgent Republicans, increasing duties on agriculture and lowering them on other products, especially those targeted as costs to farmers. The bill passed from the Senate Committee of the Whole to the Senate proper on March 4, 1930. As it did, the Republicans led by Reed and Smoot mounted a counteroffensive to regain control of the bill and reverse the "damage" done by the coalition, introducing a series of amendments aimed at restoring some of the tariff rates that had been reduced or eliminated when the Republican leadership had lost control.

The success of the counter-offensive gave the impression that the across-the-board character of the bill was being restored. However, it is obvious from the record that certain strategic sectors were targeted and given priority. The Democrat-Insurgent Republican coalition scandalized the counter-attack, blaming it on a log-roll, of sugar, timber, oil, cement, and glass, organized by Smoot. By March 24, the bill had passed in the Senate and was referred to conference, where the House and Senate rates were to be reconciled. By June 17, the resulting rates (higher than those passed in the Senate) had been ratified by the Senate, the House and signed into law by the President.

In this section, we extend our analysis to the post-Stock Market period. Did the "tariff news-stock price" dynamic that had characterized the pre-Stock Market Crash period, characterize this period? Did stock prices rise with "good" tariff news and fall with "bad" tariff news once the Republicans had regained control of the bill (i.e. from March 4, 1930 to March 25, 1930)? Or did the stock market crash and the deepening recession affect investors' beliefs/expectations? In a similar vein, did this same "tariff news-stock price" dynamic characterize the conference proceedings (i.e. from April 4, 1930 to June 17, 1930) amid the continued deepening of the recession and the multiplication of threats of retaliation from foreign governments?

Table 4: Event Study Data-Post-Stock Market Crash Sub-Periods

| 10d | |
|-------------------|---|
| 3/4/1930 to 3/25/ | 1930 |
| 19 DJIA Trading | Days |
| March 4, 1930 | |
| March 25, 1930 | |
| Code | Frequency |
| (2) | 2 |
| (1) | 7 |
| Code | Frequency |
| (-1) | 2 |
| | 3/4/1930 to 3/25/ 19 DJIA Trading March 4, 1930 March 25, 1930 Code (2) (1) Code |

1. 4. 25. 1020 Gal. Danie 4 . . .

| b) April-June 1930 Sub-Perio | bd | |
|------------------------------|-----------------|-----------|
| Sub-Period: | 4/1/1930 to 6/1 | 6/1930 |
| Sample Size: | 60 DJIA Tradin | g Days |
| Beginning of Sample: | April 4, 1930 | |
| End of Sample: | June 17, 1930 | |
| NEWS-I: Good | Code | Frequency |
| | (2) | 9 |
| | (1) | 19 |
| NEWS-I: Bad | Code | Frequency |
| | (-2) | 9 |
| | (-1) | 8 |

The March 4-25, 1930 Sub-Period

This period witnessed the resurgence of the spirit of the original Smoot-Hawley Tariff Bill which called for higher across-the-board tariffs. As pointed out, the Republican leadership under the guidance of Senator Smoot, sought to restore industrial rates. Stock prices throughout this period increased from a level of 273.51 on March 4, 1930 to 280.5 on March 25, 1930. On the day following its passage (March 25, 1930), the DJIA increased by 1.38 points.

This raises the question, once the Republican leadership had regained control of the bill, was the same "tariff news-stock price"

relationship in effect? In other words, did "good" tariff news increase stock prices (and vice-versa)? Having been "disappointed" by the Democrat-Insurgent Republican coalition's push to lower tariffs on manufactures, were investors prepared to "hope" again-that is, to believe again. To answer this question, we identified eleven news "events" in this period and tested for the relationship identified earlier. The results are presented in Rows 1 and 2 of Table 5a, where we see correlation coefficients that are similar to those reported in Table 2. More specifically, the correlation coefficients were 0.4076 between Δ DJIA and NEWS-I and 0.4036 between % Δ DJIA and NEWS-I for the complete sample, and 0.3999 and 0.3955 for the tariff news-only sample. The correlation coefficients increase to 0.5510 and 0.5509 for NEWS-II during the whole sample, and 0.6230 and 0.6196 for NEWS-II during the tariff news-only sample.

The April-June 1930 Sub-Period

The Senate bill called for tariffs that were, on average, 4.16 percent lower than the House rates, which were, on average, 8.54 percent higher than those contained in the Fordney-McCumber Tariff Act of 1922. On April 3, 1930, the Tariff Bill went to conference where it stayed until mid-June, when it was passed by both the Senate and the House, and signed into law by President Hoover. In the meantime, America's predicament had worsened. Unemployment continued to climb, but more importantly, its trading partners began to retaliate. For example, France imposed a tariff on U.S. automobiles in retaliation for the higher U.S. tariff on lace.

As retaliatory tariff measures were either threatened or enacted abroad, the very nature of the debate in the U.S. changed. Leading the charge against the tariff was the automobile industry. All three companies publically denounced the tariff bill. By June, the naysayers dominated the debate, the effects of which were felt on Wall Street. On June 15, after passage of the bill, stock prices fell 14.2 points, reportedly on the news of the "passage of the tariff." The headlines of the *New York Times* read: "Stock Prices Sag on Passage of Tariff; Viewed as Wall Street's Disapproval of the Bill."

| Table 5: Correlation Coefficients-Post Stock Market Crash Sub-Periods | larket Crash S | ub-Periods | | |
|--|----------------|----------------------------|----------------------|------------------------------|
| a) March 4-25,1930 ΔDJIA | -NEWS-I % | ADJIA-NEWS-I %ADJIA-NEWS-I | ADJIA-NEWS-II | ADJIA-NEWS-II %ADJIA-NEWS-II |
| Original Sample-19 DJIA Trading Days (3/4/1930-3/25/1930) | 0.4076* | 0.4036* | 0.5510* | 0.5509* |
| Tariff News-Only Sample-11 DJIA Trading Days (3/4/1930-3/25/1930) * p<0.05 | 0.3999 | 0.3955 | 0.6230* | 0.6196* |
| b) April-June 1930 AD | JIA-NEWS-I | ADJIA-NEWS-I %ADJIA-NEWS-I | ADJIA-NEWS-II | ADJIA-NEWS-II %ADJIA-NEWS-II |
| Original Sample-60 DJIA Trading Days (4/4/1930-6/17/1930) | 0.0087 | 0.0063 | 0.0385 | 0.0346 |
| Tariff News-Only Sample-47 DJIA Trading Days (4/4/1930-6/17/1930) | 0.0053 | 0.0035 | 0.0390 | 0.0358 |

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With the specter of foreign retaliation and growing domestic disenchantment, how did Wall Street react to tariff "conference" news? Admittedly, the stakes were different as both the House and Senate had passed the bill. All that was left was finding a middle ground. To answer this question, we identified sixty "tariff bill" news events from April 4, 1930 to June 15, 1930. For the most part, these were upward tariff revisions to the Senate Bill (as the House rates were substantially higher). The results are presented in Rows 1 and 2 of Table 5b, where we see correlation coefficients of 0.0087 and 0.0063 for NEWS-I and 0.0385 and 0.0346 for NEWS-II during the complete sample, all of which are not statistically significant. The results for the tariff news-only sample are comparable.

These results can be explained in several ways. First, the conference proceedings might have provided investors with no new information, which would explain the absence of any relationship. In other words, investors would have already factored in rates that lie somewhere between the House and the Senate's rates. Second, "good" tariff news may simply have been followed/matched by equivalent "bad" tariff news in the form of retaliation. Hence, the two effects might have cancelled each other out. In closing, while stock prices fell in the aftermath of final ratification (i.e. June 15-18), there is no evidence that "good" tariff news based on the conference proceedings adversely affected stock prices while the bill was in conference. Put differently, investors were and remained "on-board."

Summary

In this paper, we set out to discriminate between two diametrically opposing views of the role the Smoot-Hawley Tariff Bill played in the stock market crashes of October 23, 1929 and October 29, 1929. Specifically, we used tariff bill-news event data obtained from the *New York Times* from November 1, 1928 to October 31, 1929 in conjunction with daily stock price return data (DJIA) to test whether "good tariff" news increased (Beaudreau 1996, 2005) or decreased (Wanniski 1978) stock prices. In our analysis, we defined "good" tariff news as news that the Bill would *de facto* become law and/or would be more extensive/comprehensive. "Bad" tariff news referred to news that the bill **96**

would be defeated and/or scaled down. The underlying logic was straightforward, namely that the various amendments and/or partial votes constitute signals/partial indicators as to the overall probability that the bill would become law. According to Beaudreau (1996, 2005), stock prices would rise as a result. However, according to Wanniski (1978), they would fall as a result as higher tariffs on manufactures would serve to increase the probability of (i) retaliation, (ii) a tariff war and (iii) the breakdown of world trade.

These results support Beaudreau's view that investors welcomed "good" tariff bill news, and reacted negatively to "bad" tariff bill news. Throughout the sample period, "good" tariff bill news pushed the DJIA higher, while "bad" tariff bill news did the reverse. The Thomas Recommittal Plan as well as the Reed Declaration were examples of "tariff bill-related bad news," and were followed, on Wall Street, by the two massive price drops that together define the 1929 stock market crash. The defeat of the Thomas Recommittal Plan in combination with the Democrat-Insurgent Republican coalition's victory in forcing a reduction in chemical rates were followed by a 20.66 point drop in the DJIA (October 23). The fallout from the Reed Declaration was followed by a 38.33 and 30.57 drop on October 28 and 29, respectively.

NOTES

² The *New York Times* and the *Wall Street Journal* are two of the mostused information sources in event studies, be they economic, financial, environmental, etc. See for example, John J. Binder (1985). Our choice of the *New York Times* was based on its representativeness, and its

¹ Of the twelve Insurgent Republicans that had voted in favor of the McMaster Resolution on January 15, 1928 (Senators Blain, Borah, Broookhart, Capper, Frazier, Howell, La Pollette, McMaster, Norbeck, Norris, Nye and Pine), six voted against the Thomas Recommital Plan (Borah, Brookhart, Capper, La Follette, Norbeck and Norris), while five voted in favor (Frazier, Howell, McMaster, Nye, and Pine).

status as the premier source of information in the North-East. None of the news events included either of newspaper or contributor editorials.

- ³ The data, as well as the coded "news events," are available from the author.
- ⁴ The DJIA rebounded on October 31, only to return to the 230 point level three days later, where it stood for a few days before hitting its all-time low of 198 on November 13th, 1929.
- ⁵ The daily DJIA was found to exhibit a unit root. The first difference $(\Delta DJIA)$ and daily rate-of-return (% $\Delta DJIA$), however, were found to be stationary.
- ⁶ The type of analysis assumes that the market (investors as a whole) is informed of the policy change, thus yielding an unbiased assessment of the resulting "expectations."

WORKS CITED

Beaudreau, Bernard C. *Mass Production, the Stock Market Crash, and the Great Depression: The Macroeconomics of Electrification*. Westport, CT: Greenwood Press, 1996.

Beaudreau, Bernard C. *Making Sense of Smoot-Hawley: Technology and Tariffs*. New York: iUniverse, 2005.

Binder, John J. "Measuring the Effects of Regulation with Stock Price Data." *The RAND Journal of Economics* 16 (1985): 167-183.

Forbes, Timothy C. "An Interview with Jude Wanniski," American Heritage, February 1988.

Irwin, Douglas A. *Peddling Protectionism: Smoot-Hawley and the Great Depression*. Princeton, NJ: Princeton University Press, 2011.

Schwert, G. William "Using Financial Data to Measure Effects of Regulation," *Journal of Law and Economics* 24 (1981): 121-158.

Sumner, Scott "The Role of the International Gold Standard in Commodity Price Deflation: Evidence from the 1929 Stock Market Crash." *Explorations in Economic History* 29 (1992): 290-317.

Wanniski, Jude. *The Way the World Works*. New York: Simon and Schuster, 1978.